VOL. VI. ROCHESTER, NEW YORK. MAY, 1845. NO. 5.

PUBLISHED MONTHLY.

BY B. F. SMITH & CO, PROPRIETORS,

At the Seed Store, No. 4, Front Street, near Buffalo St.

DANIEL LEE, EDITOR.

Among the Correspondents are—L. B. Langworthy, N. Goodsell, Prof. C. Dewey, T. C. Peters, L. Wetherell, P. Barry, and T. H. Hyatt.

FIFTY CENTS A YEAR:

Five copies for Two Dollars; *Eight* copies for Three Dollars. All payments to be made in advance. Money and subscriptions by a regulation of the postmaster general, may be remitted by post masters free of expense. ☞ *Address* B. F. Smith & Co.

TO CORRESPONDENTS.

Mr. Johnson, of Holland, makes inquiry whether an old man may, with any prospect of being able to see the fruit of his labors, attempt the cultivation of the pear. This fruit has the reputation of requiring great age before it will show fruit; but our experience is to the contrary. Stocks of 5 or 6 years growth will bear nearly as soon as the apple, if grafted from the wood of a bearing tree. The pear is very apt to throw up suckers from the root: these, grafted as they stand, and taken up the next year, make good trees. The surest way, however, is to procure good-sized trees, from the nursery, of which plenty may be procured in this city, and in three or four years they will show fruit, and in ten years become large productive trees.—On the subject of the sweet and sour apple, we acknowledge to scepticism, when it is claimed as an artificial production; and when our correspondent will exhibit one, half red and half green, both sweet and sour, we will cry *pecavi!*

Hamilton Co. Ohio.—We have received the report of the Agricultural Society of Hamilton Co. Ohio. Their proceedings are spirited, with enlarged views of the benefit of association and combination for mutual and general improvement.

The report of Messrs. Whittlesey and Randal, appointed to make an agricultural survey of that county, contains much curious and valuable information. It refers to 127 farms and locations of different soils, aspects, and original timber, principally with reference to their ability to produce wheat, noting the period the land has been under cultivation, the variety of wheat used, the greatest and the average crop produced; with the prevailing diseases and accidental causes of failures, and the insects which infect that region. We regret our inability to publish the report, from its length, but shall avail ourselves of many of its facts, for the benefit of our readers.

We commend the course taken by the Hamilton County surveyors to the Committee on Farms for Monroe County. Many important facts might be elicited, and valuable statistics and information be obtained.

Hay-Rack.—We have received a drawing and description of a "down-east" hay rack. But as we use no carts in this country, and the article is so like the machine known here as a barrel-rack, used to transport flour-barrels to the mills, that we fear it would not come in competition with the neat and capacious articles used "up west."

We shall be happy to exhibit the drawing to all inquirers, and to hear from our correspondent from Waldo, Maine, on other subjects.

Virginia State Agricultural Society.—We have received the proceedings of a meeting at Richmond, in January last, at which was organized a State Society, nearly on the plan of our own State Society, but we think with some valuable improvements, particularly in dividing the state into four great districts, in which the annual fair is to be held alternately; and in creating, by individual donations and state bounty, a permanent fund, the interest of which shall produce means for ever, and beyond the reach of contingencies. We rejoice that the Old Dominion has waked up. Some of her people are of the right genius to make such an undertaking go off gloriously, and insure lasting benefits to her citizens.

T. N. D., of Wheatland, Loudon County, Virginia.—We were much interested and pleased with his communication. His correct notions of farming, and the means needed to bring up the worn-out land, of the Old Dominion, would be a valuable medicine for that part of the world, if it could be administered to its inhabitants; but as our *ride* does not extend into those regions, having but few subscribers there, and considering the length of his article, conclude not to publish it, at present.

Dr. Lee's Report —Several slashing criticisms have appeared in the New York papers, on the report of Dr. Lee. Strange it is, that the moment an individual has the philanthropic boldness to advocate the rights of the producing classes, the whole kennel of those who hope to live by their wits, are out upon him, "tray, blanch, and sweetheart."—Pub.

W. S. T. Two communications received.

LIEBIG, AND AGRICULTURAL SCIENCE.

We have just received a long and highly interesting letter from Mr. Horseford, formerly connected with the geological survey of this state, who is now pursuing the study of organic chemistry with the renowned prof. of Giesen University. The letter was not written for publication, but agreeably to a promise made to the editor, to inform him as to the course of study, and all the details pursued in the lecture and recitation rooms of Liebig. Some of the statements are too important to be withheld from the public. The assemblage of chemists is large, as nearly every country in Europe has its representatives.

"The last lecture," says the writer, "was on cheese, containing the results of Russian chemists who are at work in this extensive laboratory. "They have discovered two unknown acids in cheese; and that caseine (curd) is soluble in milk only because it contains an organic acid, combined with soda, in which caseine is soluble."

The reader will remember, that about nine-tenths of milk is water, in which curd or cheese is insoluble.

The variation of the quality of butter and cheese, by varying the plants, and the composition of the soil on which cows feed, is discussed at length. This is a subject of more practical importance than most dairymen are aware of. We cannot now go into details, but shall resume the subject. Milking cows three times instead of twice in 24 hours, is practiced successfully in the vicinity of Giesen. Much more butter is thus obtained, owing to the rapid absorption of the oily portion of the milk, if the gland that secretes it be allowed to remain distended.

Animal Heat.—On this subject Mr. H. remarks, "The most startling thing of the winter session, thus far, has been his (Liebig's) reconciliation of the experiments upon the subject of animal heat with the theory that derives all heat from the combustion of organic matter."

The experiments on this subject are illustrated by a drawing descriptive of the apparatus. Dulong and Despretz are the Chemists who differ with Liebig. We can hardly make this abstruse scientific discussion interesting to the general reader.

At the University of Giesen are pursued the studies of law, medicine, physiology, chemistry, &c.

Mr. H. speaks of having met with a gentleman who cultivates 94 species and varieties of wheat, corn and barley. The person named has recently published a work on the "ceralia," which is regarded as the best extant. The editor of this paper is promised some of the choicest varieties of these seeds, for distribution through the New York State Agricultural Society.

Mr. H. is devoting particular attention to the wheat culture of Germany; well remarking, "that it is impossible but that the experience in wheat growing by these patient, thinking Germans, for 2,000 years, should be either uninteresting or unimportant." We expect a communication on this subject.

Manures.—Don't forget the use of leached ashes, gypsum, charcoal, and urine. You can hardly apply them amiss, either in the hill, on it, or by scattering broadcast.

Sale of Stock.—Mr. Prentice's entire stock of Short Horns will be sold at auction on the 25th of June.

STEEPING SEED-CORN.

It is believed that a peck of seed corn soaked 24 hours in a steep made by dissolving one-fourth of a pound of common sal-ammoniac, (muriate of ammonia,) in six quarts of water, will serve to protect the corn from grubs, and increase the crop.

The experiments made in Scotland the past season, and in England also, have not uniformly proved so favorable as was anticipated. Nevertheless, the testimony in favor of steeps is, on the whole, calculated to inspire confidence in their practical utility. The temperature of the solution should be between 60 and 70 degrees.

Instances are given where it was thought that seed grain had been destroyed—*i. e.*, its germinating power, by the use of too strong solutions of saltpetre and muriate of ammonia. Any one disposed to try the experiment can soak a few kernels in a solution of any given strength for 24 hours, and then place them in warm moist earth to sprout, till he can tell whether the germ be injured or not. The stronger the solution can be made, without injury, the better it will operate on the coming crop.

Apply all your spare unleached ashes to your spring corn and potato crops, in the hill, or on the hill. In default of unleached ashes use those that have undergone the process of leaching. The compost recommended in my report will be found to be very valuable. The mass should lie some two weeks, and be well mixed once or twice, before it is fit for use. The soda thus obtained by the decomposition of common salt will be a most useful alkali. The addition of ground charcoal will be useful. The quantity to be used I will leave to the sound judgment of the farmer in each case; premising that the expense will be likely to prevent the application of a quantity so large as to be hurtful. This compost can be used as a top-dressing to grain crops, or it can be applied to hoed crops.

ELECTRICITY—EFFECTS ON VEGETATION.

At a late meeting of the New York Farmers' Club, Mr. R. L. Pell, of Ulster County, presented to the club two pots containing growing plants; in one of which a regular galvanic battery had been prepared in the usual way, by coils of zinc and copper plates, moistened by a weak solution of sulphuric acid. The wire connecting with this apparatus was brought into contact with the roots of the growing plants. The result was, that the plants thus treated, other things equal, grew 22 inches in the same length of time that the plants in other parts grew but 5 inches.

Similar experiments have been tried in Europe for many years, and with marked results.

PREPARING WOOL FOR MARKET.

This is an important matter. To wash sheep well, a narrow vat, with a small stream of soft water running into it, is the best contrivance that we have ever seen. The operator stands outside of the vat, into which the sheep is placed. Water may be poured into the reservoir, in the absence of a running stream.

A smoothly planed box, of the right width, is the best apparatus for doing up fleeces neatly. Place the twine at the bottom of the box, roll tight, and tie snugly, It is easy to get 2 or 3 cents per pound more for the same wool, when put up with care and skill, than it would bring if put up in a slovenly manner.

The Western Reserve Magazine of Agriculture and Horticulture, *monthly, in pamphlet foam. Cleveland, O.*, F. R. Elliott, *Editor.*

This publication is a neat and chaste production, abounding in illustrations, and has some well-written articles on Fruits, Locations, and Planting Trees, a subject to which the attention of the settlers in new countries cannot have their attention too frequently called.

Ten years ago there were but three or four publications, including our own, in the United States; and now every town of any consequence, and some the reverse of that claim, produce one or more: they are as plentiful as blackberries! Verily, we are a great people!

PUMP-LOGS—INQUIRY.

Mr. Editor,—I would like some information respecting the best method of laying pump-logs; and also what kind of timber will be the most durable. Please answer the inquiry, and I shall feel much obliged. A YOUNG FARMER.

Our opinion is, that white pine is the most durable, and easiest worked, of any of our forest woods, and that good straight-grained timber, 4 by 4 for a two-inch bore, and 10 feet long, will do more service than any other form it can be made in, because the wood is so thin in all its parts, that it is constantly wet, and consequently does not rot or decay. Hoop iron, ¾-inch wide, is riveted into a band 3¼ inches in diameter, and driven into the end of the timber, when one log is inserted into the other. But a much better course is, to have a cast-iron connecting tube, about 3 inches long, and driven into the ends of the logs. Two men will lay 50 rods per day.

For the Genesee Farmer.

AURORA (Cayuga Co.) AGRICULTURAL SCHOOL.

A glorious place, this, for a School Farm! When N. P. Willis, in his "Cherokee's Threat," essayed to paint the beauties of the vegetable creation, on the borders of Cayuga Lake, he did worse than attempt to adorn the lily—he caricatured the indigenous floral creation. The names of David Thomas and Dr. Alexander Thomson, as connected with the Aurora institution, gives an earnest that no money-making scheme is attempted at the expense of the community. If a thorough knowledge of practical agriculture, in connection with science—if an enthusiasm for, and an intimate acquaintance with all that relates to the fruits and flowers of the earth, are admitted to be requisite qualifications in those who are to "teach the young idea how to shoot"—then the Aurora school must be a desirable place, not only for farmers' sons, but for any other son who has the taste and good sense to prefer the good and beautiful in the world to the world's illusions. S. W.

Draining.—This is a branch of rural labor quite too much neglected in this country. The cost need not be any thing like the profit attending the operation. At this time we intend barely to call public attention to the subject. See that your ditches are all open; for notwithstanding the very dry and unfavorable weather which we have had for the last three weeks, we may soon experience a touch of the opposite extreme. Too much water, or any standing water just below the surface, is fatal to healthy vegetation.

SPROUTING SEEDS.

Extract from a letter to Messrs. B. F. Smith & Co., Proprietors of the Rochester Seed Store, from a seed-grower in Massachusetts:

"I find from many years experience that much labor and vexation is saved by sprouting all small seeds before sowing, and especially onion and carrot. A little plaster of Paris mixed with the seed at the time of sowing will absorb the water and separate the seed. Several years since, I planted a large field of carrots, with the seed dry, without sprouting. The seed I knew to be good; but it was almost a total failure; and in searching for the cause, I found that a small insect, (a sand-fly, I call it,) which, sometimes, in a dry time in the spring, is very numerous. This insect, I found, would destroy the seed as soon as it opened to vegetate. Since then, I have always sprouted my seed, and have never found any difficulty. Another advantage I have found in the practice is, that the seed will come up before the weeds, (say from two to four days,) and keep ahead of the weeds through the season. I have always recommended the practice to my customers, which is generally adopted.

"If you are seed-growers, I need not mention that in sprouting seeds, they must not, for any great length of time, lie submerged in water. My practice is, to put the quantity of seed I wish to sprout into a bucket, and pour to it water sufficient to cover the seed. The water may be quite warm. Let it stand over night, or until the seed is sufficiently saturated; then drain off all the water, and let stand in a moderately warm temperature till the seed sprouts; taking care to stir it, and not let the seed get dry.

"I have planted carrot seed with the sprouts an inch in length, and had the plants appear in rows on the surface in two days."

Prospects of the Wheat Crop.—Wheat, on the oak and dry soils, stands well, but is generally backward, which in most cases is undoubtedly owing to late sowing, in consequence of the excessive drought that prevailed throughout this country last autumn. Those that sowed early, notwithstanding the dry season, have the best prospects, for although much failed to germinate, yet it has made amends by stooling out, and now looks very well. On sandy soils, the high winds and dry weather have had a bad effect; and on low and mucky soils the month of April has been severe, and a great deal is killed out, and otherwise looks poor. A great breadth of land is sown this year; and if the late-sown escapes the rust, we think there will be a full average crop.

KITCHEN GARDEN.

We trust that no head of a family who reads this paper will fail to secure a good kitchen garden. It has three important advantages: First, it is decidedly profitable. Secondly, its products are exceedingly comfortable; and, thirdly, a garden furnishes more innocent recreation to a family than any other thing combining the useful with the agreeable.

Children should learn to work in the garden; and boys should be taught to practice the art of grafting and budding, and to understand the theory of improving all kinds of fruit. A garden is a capital place to lecture on the laws of nature.

For the Genesee Farmer.

SYMPHYTUM, or COMFREY;

A new kind of Food for Men and Cattle.

In searching for aids in a new self-supporting system of general and liberal education, especially in the physical and dietetic departments, I was led, some ten years ago, to commence a series of experiments upon this vegetable; the interesting results of which I began, in September, 1842, to communicate publicly in my own native eastern region. This, for the public benefit, I wish still to do, as opportunities shall be afforded.

I have found this article truly of rare value: the *herb* made into hay for cattle, and the *root* dried and ground to flour for man. Any who shall use similar experiments, I doubt not, will find similar results.

It is a native of this and many other countries; found both in a wild state and also cultivated in many gardens for its healthful qualities. It is perennial; very hardy; the crop sure; the growth luxuriant; the produce abundant; while the labor it requires is very small. In 1841, I obtained, of two years' growth of roots, on soil of moderately good tilth, after the caps of the roots were taken off to re-plant, when thoroughly dried and ground, at the rate of 24,200 pounds of flour the acre. In 1842, I obtained on the same soil, from the herb of the second years growth, at two cuttings, at the rate of 11,616 pounds of well-made, good hay the acre. It requires no other tilling, or attention, than digging the crop of roots in April, once in two or three years, and re-planting as you dig, about 7 or 8 inches apart both ways; and cutting and haying the herbs, once the first year, and twice a year afterwards.

When ground in a coffee or corn mill, the root flour may then be used like other articles of food, according to the requisitions of health, convenience, or fancy, in various breads, gruels, puddings, griddles, soups, pastry and custards, and in such proportions as shall be found agreeable. It is, like arrowroot, sago, and oatmeal, very mucilaginous, nutritious, and easy of digestion. It operates well for the lungs. It has restored a lost voice, and is one of the best remedies for habitual coughs and incipient consumptions. It nourishes the feeble, and suits well a dyspeptic stomach, when no other food can be kept down; and it sets all right in the bowels. I think it one of the best articles for sustenance and health ever made for man, and that on almost every account But let others cultivate and try it for themselves, and it will probably, with them as with me, be constantly growing in their estimation.

With kind regards to all concerned,

EZEKIEL RICH,
A Minister of the Gospel and an
Batavia, N. Y., 1845. Educator.

For the Genesee Farmer.

SCIENCE OF VEGETABLE NUTRITION. POTATO-FATTED HOGS.

How is it that doctors do so disagree. Professor Emmons says, that plants "derive their sustenance almost entirely through their roots." *Per contra*, Dr. Lee is of opinion that at least 80 per cent. of all vegetable structure is derived from the atmosphere. Liebig's theory corroborates Dr. Lee's opinion: he says, "When a plant has matured the organs by which it obtains food from the atmosphere, the carbonic acid from the soil is no longer required." I have tried the experiment of clipping the leaves of Indian corn, after the pollen was developed: the result was, thot no perfect ears were performed.

Professor Hall remarks, that different plants possess different powers—some absorbing more from the atmosphere than others; that a vine running over a dunghill, or in the vicinity of animal and vegetable decomposition, will flourish better than in an inodorous atmosphere. This strikes at the doctrine of Dr. Emmons, and corroborates Liebig, Lee, and others.

Mr. True Remick, of Maine, fats hogs on potatoes—*prima facia* evidence that vegetable physiologists are mistaken in supposing that potatoes do not possess the fat-forming elements of Indian corn. Query—How many boiled potatoes did those hogs eat? how hard was their fat? did it not evaporate when exposed to the hot frying-pan? Did it never occur to a farmer, that the leaf-lard of a potato-fed hog would evaporate full 15 per cent. in the frying?

S. W.

For the Genesee Farmer.

MARL.

Marl—a species of calcareous earth, of different composition, and possessing fertilizing properties.—*Webster.*

The term "marl;" in common *parlance*, is applied to many deposits which contain lime, and by some to soils which are of a yellowish color, which contain a small portion of clay, mixed with silicious matter, with or without lime.

Shell-marl is a term more limited in its signification, and is used to denote those deposites which are found scattered through different countries, and are evidently produced by different crustaceous animals, while living in salt or fresh water. The shells of such animals are composed of lime, combined with phosphoric and carbonic acid, and, when fresh, contain ammonia. All these substances, separate or combined, are taken into plants, and without them many plants will not arrive at perfection. Shell-marl has, in countries where it is found, been considered equal in value with plaster of Paris, and, when applied to wheat lands, even superior to that article.

There is another substance, found precipitated from waters which flow from lime formations, which is often called marl. It is found in beds of considerable thickness, in some localities soft and friable, in others forming porous stones, of greater or lesser magnitude, when it is called *tufa*. This substance has been found valuable as a manure, when applied to soils destitute of lime.

Localities.—In searching for shell-marl, those places should be examined which are supposed to have been covered with standing pools or ponds of water at some previous period, and which have been drained by art, or become dry by natural causes. In such localities, it is often found resting upon a stratum of soft, unctuous earth, and covered with a quantity of vegetable matter.

Test.—The quality of shell-marl may be readily ascertained by putting a small quantity, when dry, into a tumbler, and pouring vinegar upon it: in proportion to the rapidity of its effervescence, so will be its value.

N. GOODSELL.

RHUBARB, or Pie Plant.—After the plants have a good start, (say second year after planting,) hoe the earth from the roots 18 to 24 inches and as deep as the roots run down. Then put in a quantity (no danger of getting too much) of r tted cow manure, and the effect is astonishing the succeeding year—rendering it unnecessary to put barrels over them—the stalk being much more tender from its quick growth. You can in this way have cuttings twice a week from the same plant. This is the result of my experiment. J. H. W.

ALBANY, *April* 22, 1845.

MESSRS. B. F. SMITH & CO.—GENTLEMEN: I send you a copy of my report on agriculture, with so much marked out as will bring it, I trust, within the moderate limits of the Farmer. If it shall be thought best, the balance of the report, with perhaps some additional remarks, will be published in the succeeding number.

I have reported a bill to grant $5,000 a year, for three years, to the Fairfield Medical College, provided the trustees shall change the institution into an agricultural school. The buildings, chemical apparatus, &c., are well adapted to the object in view. The location is not so favorable as I could wish; but, with the ice once broken in this matter of agricultural schools, and their practical utility fairly tested, there will be no difficulty in establishing them wherever they shall be needed.

D. LEE.

REPORT
OF THE COMMITTEE ON AGRICULTURE.

IN ASSEMBLY—*March 20th*, 1845.

Dr. D. LEE, of Buffalo, from the Committee on Agriculture, to whom was referred so much of the Governor's Message as relates to that subject, reports:

Speaking of agriculture, the Governor says:

"The interest involved is not merely the most important committed to our charge, but more important than all others."

This is no more than a just appreciation of that portion of the public interests committed by the House to the charge of your committee. Happy shall we be if any thing we can say or do shall serve to lessen the hard work now expended in producing a pound of wool, a firkin of butter, or a bushel of wheat.

Agriculture is a subject that public men are far more inclined to praise than to aid by any legislative enactments. However others may regard the interest of rural industry, your committee believe that, while legislating for half a million of farmers, we owe them something *more* than empty commendation—something *better* than a heartless lip service.

It is known to all, that no class in the community give so much muscular toil for $100 as do the common field laborers in the state of New York. The hard work of skilful farmers is bought and sold at 9 or 10 dollars a month, and twelve hours toil is cheerfully performed each day. But the mechanic, the banker, the merchant, the broker, or the professional gentleman, thinks his service very poorly rewarded if he do not receive three or four times that sum.

If a man whose whole life is devoted to the cultivation of the earth, does not and cannot earn so much as the merchant, the physician, or the lawyer, in the course of a year, pray tell us what is the *cause* of this inability, that wise legislation may remove it. And if the agriculturist does earn as much as any non-producer in the state, then please inform us how it happens that an experienced farmer must sell his labor at $120 a year, when he cannot hire one experienced in the mysteries of the law or medicine for less than $1,000 a year.

Surely the toiling husbandman *needs*, if he does not *deserve*, as many good meals, as much good clothing, and as fine a house, as one that merely studies to acquire, not to produce, the good things of this world. Nevertheless, the fact is notorious, that the great body of our rural population somehow contrive to work a little harder and fare a little poorer than any other class in the community.

We learn, from reliable statistics, that paupers increase among us much faster than population. The number that live from hand to mouth, only one step from the poor-house, is increasing with fearful rapidity. There are already more than 500,000 people in this state wholly dependent on their daily labor for their daily bread.

If the legislature will do as much to instruct the producing classes how to keep and enjoy the entire proceeds of their honest toil, as it does to teach all non-producers how to exchange their shadows for the working-man's substance, nine-tenths of our growing taxes for the support of the poor, and the punishment of crime, will cease for ever. On the contrary, so long as three-fourths of any community give the products of three, four, or six hands for the little earnings of one hand, just so long will hungry mouths, naked backs, and houseless heads, claim assistance by a tax on the property of those that are better off. According to the official report, the direct tax in this state for the year 1844 was $4,243,100. This will soon be $8,000,000, unless we cease to manufacture paupers, criminals, and needless litigation.

On what does the productiveness of the farmer's labor mainly depend? Surely not on his mere muscular strength; for in that case the mechanical power of a cart-horse will exceed five-fold in value the labor of an agriculturist. It is the sound judgment, experience, and acquired knowledge of the directing mind that imparts productive value to the labor of human hands. And it is mainly because the intellect employed in rural pursuits is less developed than the mind devoted to other and mere professional occupations, that agricultural labor is so poorly rewarded. The truth is, that *passive* intellectual faculties are utterly valueless. They produce nothing. Hence, as the mind of a human being lacks science or knowledge, the market value of his mere physical force depreciates in price. Without going into an elaborate argument, your committee appeal to the ten thousand improvements of the age in which we live, as furnishing conclusive evidence that there is no power on earth so productive of great and beneficent results as the power of highly cultivated intellect.

Those that follow the plow, and swing the axe, and gather the harvest, have not, as a class, been instructed in the sciences which reveal nature's process for changing earth, air, and water into bread, meal, and clothing. Hence, to manufacture a barrel of pork, of flour, a firkin of butter, or 100 pounds of wool, from the ingredients necessary to form those agricultural staples, the farmer loses one-third or one-half of his labor by its misapplication. To make one ripe wheat plant, nature requres no fewer than fourteen simple and distinct elementary bodies. Each one of these substances has peculiar properties, and not one can serve as a substitute for another.

The laws established by the Creator of the universe, which govern all the changes in the form and properties of matter, whether in a crude mineral or in an organized condition, making the living tissues of plants and animals, are as uniform and unerring as the laws that regulate the rising and the setting of the sun. By studying the operation of these laws, the practical agriculturist is often able to effect a result in a day, which he could not accomplish in

a week while working against the purposes of nature.

It is not far from the truth to say, that 400,000 of the 700,000 children now attending our common schools, are destined to become practical operatives in the great art of making *something* into grain, grass, roots, milk, butter, cheese, wool, fat, lean meat, bone, or some of the numerous other products of rural labor. *Where* that something can be found, and *how* the raw materials of all cultivated plants should be combined so as to give the largest return for any given amount of capital and manual toil, are problems in practical husbandry, which science alone can solve.

If the ashes obtained by burning a ripe wheat, rye, oat, corn, barley, or timothy plant, be analyzed, not far from 80 per cent. will be found to be silica, or common flint sand. This silica is an indispensable ingredient in the above-named crops; and yet, not one particle of this mineral can enter the root of any plant except it be dissolved in water. Now, of all earthy substances, flint sand is the most insoluble. Indeed, you may boil it for hours in aqua fortis, sulphuric or muriatic acid, without dissolving it. How, then, is the practical farmer to dissolve this mineral, which, more than all others, forms the *bone* necessary to give strength to the stems of his grain, that they may hold up, without falling, the load of ripe seed in the ears?

Chemically speaking, silica is an acid, and will unite with a large dose of the two alkalies, potash and soda, and form a soluble silicate of those bases.

This explanation reveals the reason why the alkalies in wood ashes are so valuable as fertilizers on sandy soils. On comparing the analyses of maple, beech, and oak ashes with those obtained from cereal plants, there will be found a striking similarity in their respective constituents.

Next to clay, sand, and potash—lime, soda, phosphorus, sulphur, chlorine, and iron, are the most important minerals found in cultivated plants. To prepare these ingredients for use, the following is a cheap and easy process:

Take ten bushels of newly-slacked lime—i.e., ten before it is slacked—and mix it thoroughly with 20 bushels of loam or vegetable mould. Add to the heap five bushels of common salt and an equal amount of plaster of Paris. Moisten till the mass is like damp earth.

The plaster will furnish sulphur, and the common salt will yield both soda and chlorine. The latter will leave the sodium and unite with the caustic lime, forming a soluble salt, called the chloride of calcium. The sodium being first converted into soda, will then combine with the carbonic acid from the air and organized matter in the vegetable mould, and form a precious alkaline salt, which will dissolve common sand. This compound still lacks phosphorus and iron. Ground bones furnish the former, and copperas the latter mineral. If one can get the liquid excretions of domestic animals, or of the human species, and saturate the compost heap with this compound of ammonia, phosphoric acid, and of other valuable matters derived from plants, the fertilizing properties of this artificial manure will be greatly increased.

There is no branch of business in which the sciences of geology, chemistry, and of vegetable and animal physiology, are so useful to man, as they are to the practical husbandman. The term science is but another name for knowledge. It is, however, usually limited in connection with natural phenomena, to the systematic investigation of the laws of nature. Of all men, the practical farmer is most interested in understanding and obeying these wise and salutary laws.

The fact is susceptible of demonstration, that from a general ignorance of these laws, we have wasted in the state of New York, within the last twenty-five years, the indispensable ingredients that go to form both *bread* and *milk* for our children, which, if placed in New York or Boston markets, would sell for one hundred millions of dollars.

The guano imported into Great Britain last year sold for $4,000,000. It is retailed in Western New York by an exchange of four pounds of flour for one of guano.

To make an acre of wheat that will yield twenty bushels, the plants must have 12 pounds of phosphorus. To purchase that amount of a substance, which forms one of the constituents of the human brain, at a druggist's shop, will cost $24.

The fact is notorious, that there are thousands, if not millions of acres in this state, which once bore 20 bushels of good wheat per acre, that now yield not more than ten bushels. To make our twelve millions of bushels of wheat a year, we annually consume about seven millions of pounds of phosphorus. It is the phosphate of lime contained in grass and hay, derived from the earth, out of which all our domestic animals form the solid earthy portion of their bones. At present prices, the phosphorus and ammonia annually thrown away in the solid and liquid excretions of man and his domestic animals, are worth some $20,000,000.

A cargo of guano—phosphorus and concentrated nitrogen, derived from the fish on which sea-fowls feed—arrived in New York a few days since, which will sell at some $60,000! What consummate folly, to throw away the raw materials which form our daily bread!

In a work just published in this country, M. Boussingault states, that he has seen fields on the table lands of the Andes which have produced excellent crops of wheat *annually*, for 200 years. Guano is the fertilizer used on these fields.

Recent experiments in Scotland have demonstrated the practicability of growing 44 bushels of wheat on an acre having only 1½ per cent. of organized matter in the soil. It must contain, however, to a limited extent, each of the 14 simple elementary substances which form a wheat plant.

It is well known, that if a bin of corn be moistened, it will heat, and grow or rot. In the process of sprouting, a seed first imbibes some portion of the vital gas which surrounds it, which, uniting with the carbon in the starch, forms carbonic acid, and evolves heat. When starch thus loses one portion of its carbon, it is changed into a kind of sugar, making, as is well known, sweet bread from wheat a little grown. If a grain of wheat be surrounded by a little waxy clay, only a half-inch in diameter, it will not sprout, because oxygen gas cannot penetrate the compact earth. By sowing grain in wet weather, so that the harrow covers the seed with mud, thousands of bushels are lost.

It is a matter of great practical importance to know how to develop a large, vigorous growth of roots. On a poor soil, this can only be done by the aid of science. Deep plowing, and a thorough pulverizing of the soil, are indispensable to accomplish this object.

If it cost the farmers of New York twice as much land and labor to produce a bushel of grain as it does their competitors out of the state, how are the cultivators of the earth among us to prosper?

All the farmers in the Empire State should rise as one man, and insist that the science of keeping property, and the science of good husbandry, shall be taught in all their common schools.

The same mental cultivation which will enable an honest tiller of the soil to double the products, and double the value of his better-directed industry, will also qualify him to keep and enjoy a much larger portion of the nett proceeds of his labor.

It is now twenty-six years since the friends of agricultural improvement first made a vigorous effort to establish an agricultural college in this state. Your committee have before them an essay published in this city in 1819, of forty-two pages, advocating such an institution with unanswerable arguments.

At a latter period the lamented Judge Buel succeded in procuring a naked charter for such a school; but not a single dollar could be obtained to aid private enterprise in teaching the unerring laws of nature to the young men who are to pursue the modern art of transforming solid rocks into fertile soils, and these, again, into human food and raiment.

Wise legislators conferred unlimited authority on a few Canal Commissioners to expend indefinite millions in cutting and beautifying *inanimate stone* along the line of the enlarged canal; but the law-making power refused to grant one dollar to teach the science of rural economy to the sons and daughters of practical farmers. Within the last twenty-six years there has been taken from the public treasury about $200,000 to prepare the candidates for legal honors to study successfully the science of law. We have also four well-endowed medical colleges, now drawing from the public funds $5,500 a year, besides $200,000 before received.

We have so long paid a large bounty on all branches of unproductive industry, that no young man, of any honorable ambition, will consent to toil and sweat, and burn in the sun on a farm, for $10 a month, when, as a clerk in a store, a bank, or a broker's office, or as a student in the doctor's or lawyer's office, he can expect, in the course of twenty years, to command five dollars to one, and at one-fifth of the severe bodily labor exacted of the practical agriculturist. But can all our ambitious young men become professional gentlemen, without rendering these professional pursuits utterly valueless? If learning and science are the great highways to honorable distinction and public favor, why deny these advantages to those that do more than all others to feed and clothe the whole community?

It is true that science is the greatest leveler in the world; but, unlike the leveling of ignorance and brute force, it ever levels upward. It takes the highest point of mental attainment already achieved for its standard; and then, wisely and humanely attempts to elevate all below up to that standard.

The object of this effort is to make the triumph of *mind* over *matter* universal and complete. All men blessed with a common share of common sense should have, in their every-day business operations, the full benefit of the best lights of modern science. Science gives to the poor man unknown and ever-increasing power over heat, light, electricity, chemical attraction, air, water, and the solid substances which form the surface of the globe.

All these elements are brought into requisition by nature, in changing crude mineral matter into living organized beings—into the cultivated plants and domestic animals produced by the labor of the husbandman. To increase the knowledge of the producing classes does not detract, in the least, from the attainments of any class that may stand, or think they stand, above the common average of the community in which they live.

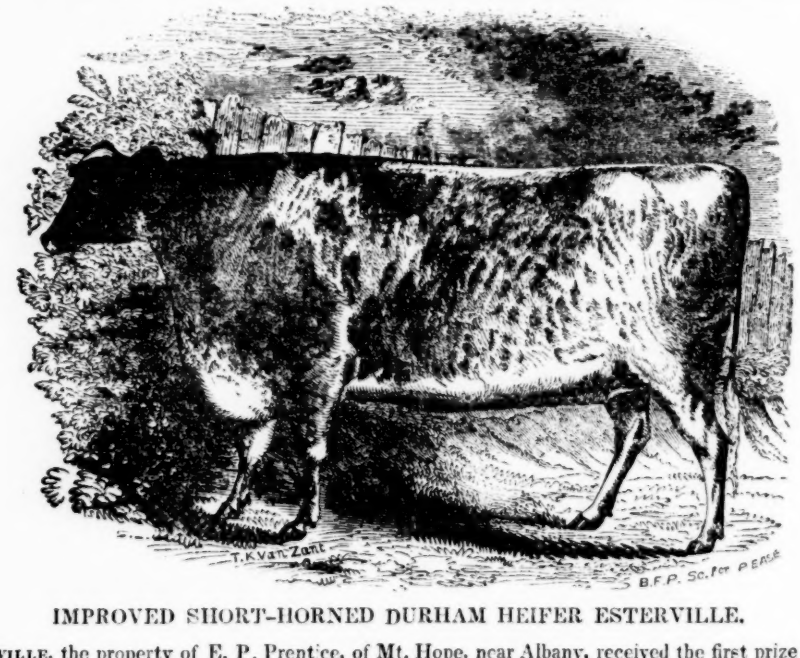
Why shall we refuse to do as much to make skillful and scientific farmers as we do to make skillful doctors and lawyers?

There are 11,000,000 acres under cultivation in this state, yielding an average product worth $7 per acre. Communicate to the half-million of men who cultivate these lands a knowledge of the laws of nature which govern all the results of rural industry, and instead of exhausting the soil of its bread-forming elements at the rate of millions a year, they will improve the land and harvest, at the same cost in labor, three dollars per acre more than they now do. This will add to the productive value of our agricultural industry $33,000,000 a year, and to the revenue of our canals more than one million of dollars: for a large portion of this will go to the cities on the sea-board, and be paid for in goods to be returned through our canals to the consumers. Thus the property dug from the earth will contribute a double toll to the state.

Who cannot see that commerce, manufactures, and all other pursuits in civilized society will be largely benefited by increasing the productiveness of rural labor? Hence whatever we give to agriculture is truly given to all classes. By unwise cultivation, we have all consumed much of the constituents of human food and clothing that a a bountiful Providence spread over the virgin earth in the Empire State. Science now comes to our aid, and teaches us how to change a cold, compact subsoil, into a loose, friable, and most productive surface soil. It reveals to us *why* it is that a good soil will produce 100 pounds of ripe wheat plants, and yet lose only 15 pounds of its weight and substance by the operation, eighty-five pounds coming from the atmosphere.

Very fine Hogs.—A. Russell, Esq. of Deerfield, Mass., in a communication to the editor of the Massachusetts Ploughman, says, he fatted and killed a pig 11 months and 6 days old, that weighed 532 lbs. Respecting the best mode of feeding hogs, he says, "I fed him for the last six months entirely on corn ground in the ear, and wet. This was the largest hog ever killed of his age. I have tried various ways in feeding, and I have had the best luck in giving mixed ground feed, in the cold part of the year; wet it with warm liquor, and give it soon after it is mixed—always keeping a clean trough and a dry place for them to lie in.

It would seem that old Deerfield will soon stand at the head of the list for fat hogs: as it has long been *head* and *horns*, above all other towns for fat cattle. Mr. R. says, "Ten of my townsmen have handed me a list of the weight of 12 hogs that they have killed for their own use this winter, which beats the Connecticut hogs mentioned in the Hartford paper. Whole weight is 6,698; average, 558; the largest was 661, the smallest, 503; the oldest 20 months; the youngest, 14 months."



IMPROVED SHORT-HORNED DURHAM HEIFER ESTERVILLE.

Esterville, the property of E. P. Prentice, of Mt. Hope, near Albany, received the first prize for two-year-old heifers at the Cattle-show of the N. Y. S. Ag. Soc. at Poughkeepsie, 1844. She was sired in England by the Daniel O'Connell (3,537)—dam, Esterville, by Sir Alfred (6,469)—g. d. Amethyst, by Prince of Northumberland (4,826)—g.g. d. Amazon, by Crusader (934)—g.g.g. d. Amazon, by Sultan (1,485)—g.g.g.g. d. Bellona, by Mars (411)—g.g.g.g.g. d. Rolla, by North Star (458.) own brother to Comet, sold for $1,000. Sir Alfred was, in 1840, sold to the King of the French.

For the Genesee Farmer.

WINTERING STOCK—A DIALOGUE.

(Continued.)

James. Brother H., when I got home I saw how miserable and poor my cattle were when compared with yours; so I resolved to do differently in future. But I must have some of the big beets; so you must inform me how to raise them.

Henry. I am glad that you have come to so good a resolution: and if you do but put it into practice, you will have both the satisfaction and profit of it. When you were here before, I forgot to inform you that you must not allow any of your stock to ramble over the fields when they are soft, nor before the grass is well up. What little they get early in the season, by plunging over the fields, is a real injury to the animals, and very hurtful to the ground. You never should turn into the pastures until they are up a good bite: they will then afford much more feed through summer, and the stock will do much better.

But to the root-raising: The essentials for raising a bountiful hoe crop of any description are, to have the ground rich—to keep it clean and well pulverized. Now I must inform you how I apply my manure—for you must have manure to make your ground rich. Stabling your cattle, and feeding them with roots in winter, it makes much more and much richer manure. The increasing of the quantity and quality of the manure is one of the most essential benefits of the root crop.

I prepare my ground in the fall, for all my hoe crops. You now must do the best you can, and next season you can do better.

You see that I have all my manure in the yard, and by the first of May have all the straw and useless forage trodden under foot, for manure. About the first of April I spread plaster all over my yards, about two tons: and about the last of May, or as soon as spring work is over, I put the manure up into heaps in the yards, and cover these heaps over with a thin coat of plaster—about two tons more. The manure remains in these piles through summer, and as soon as my fall crops are secured, or as soon as I can, I apply this manure to my next spring crop, but previous to putting on the dung, I sow the ground with plaster—about two bushels per acre.

On the ground intended for the beets, I put of said manure 30 wagon or ox-cart loads per acre; and on the corn and potato ground, 25 loads per acre; spread it evenly over the surface, and then plow it deep and well, not leaving any unturned.

In the spring, as soon as the ground is sufficiently dry to pulverize, give it a thorough harrowing lengthwise of the furrows; it is then ready for marking for corn and potatoes. But the beet ground must be cross-harrowed, so as to mix the soil thoroughly. Harrow sufficiently: do not fear hurting it, if the ground be but dry. Then take your plow and ridge it into narrow ridges, 2½ or 3 feet apart. Then with a marker, drawn by a horse, or with your hoe handle, make a mark on the top of the ridge, about 2 inches deep—drop the seed into it, about 2 or 3 inches apart, then cover them lightly with a hoe or rake.

The seed you can get at the Rochester seed store: put on 3 lbs. of the mangel wurzel, or the large white sugar beet, per acre. Try some of each, and

you will see which is best adapted to your soil; and also get half a pound of ruta baga seed per acre, to mix with the beets—it gives a double chance for a regular crop.

Soak the beet seed in warm soft water, for three or four or even five days, changing the water occasionally. When ready to plant, pour off the water as dry as you can; then roll the seed in white plaster or flour, to make it white, so that you can see how you are dropping it.

Soak the turnip seed in tanners' oil two or three days, to prevent the flies from eating the young plants. Mix the beet and turnip seed together before sowing, as I have stated above, 3 lbs. of one and half a pound of the other per acre: by thus doing, you have two chances for a bountiful crop. And sow as soon in May as the ground and weather will permit.

March 24, 1845. WHEATLAND.

"N. Y. FARMER & MECHANIC" Criticism on S. W's. Essay on Manure.—Indian Corn as a Green Crop.

I have just had the honor to receive through the post-office two numbers of the "New York Farmer and Mechanic." It is a well-printed hebdomedal, on good paper, containing none of those long, commonplace tales, indigenous and exotic, which so generally monopolize the columns of those blanket sheets yclept "the cheapest newspapers extant." If the New York Farmer is not, at $2 a year, the lowest-priced weekly in New York, in my humble opinion it gives as much valuable and interesting matter for $2 a year as any other paper printed there.

The editor of the agricultural department of this paper, B*, in noticing the extracts from my Essay on Manures, as published in the Genesee Farmer, demurs to the assertion that "the atmosphere, and not the earth, is the storehouse of the elements of organic life." He first quotes a passage from Liebig, to show that the oxygen of the atmosphere converts the humus in the soil into carbonic acid, which is taken up as food by the roots of plants: and then makes the unqualified assertion, that the earth is the storehouse, and the atmosphere the digesting agency of vegetable life."

B* is undoubtedly correct when he says that the earth is the storehouse for manures, and that science is with the farmer who fills it; but science is also with the farmer who makes up for the paucity of his animal manures, by the use of lime, plaster, ashes, &c.—substances which have the power to receive and fix carbonic acid and ammonia in the soil, to aid in dissolving the incumbent humus, and then to perform still another part, by entering into the tissues in some form, to add to the organism of the plant itself.

If B.'s theory be true, why will a spoonfull of plaster, guano, or crushed bones, applied to a hill of corn, cause it to produce so much more than it would yield without such outward application? I would ask, if nearly one-half of all vegetable structure is carbon, how is it that some soils produce good crops from year to year, with hardly a trace of soluble vegetable matter in them? It is the well-settled opinion of Justus Liebig, corroborated by that of Sennibier, Ingenhauss, and others, that the carbonic acid of the air, serves for the food of plants, and that its carbon is freely assimilated by them. M. de Saussure was fully aware of the omnipresence of carbonic acid in the atmosphere before he ascertained the fact, by experiment, that it was present in the atmosphere of Mont Blanc, where eternal snows cover the earth's surface.

B* will admit that oxygen gas and water come from the air. We now come to nitrogen, which, with hydrogen, forms ammonia. Liebig, in his organic chemistry, says, "A certain portion of nitrogen is exported with corn and cattle; and this exportation takes place from year to year without the smallest compensation; yet after a given number of years, the quantity of nitrogen will be found to have increased? Whence, we may ask, comes this increase of nitrogen? The nitrogen in the excrements cannot reproduce itself, and the earth cannot yield it. Plants, and consequently animals, must therefore derive their nitrogen from the atmosphere."

On a dry prairie near Vincennes, Ind., Indian corn has been grown, without the aid of animal manures, more than 70 years in succession, with very little diminution of crop. This fine soil doubtless possesses all the inorganic matter necessary to form the inorganic structure of the plant grown on it; but I would ask B*, Whence do the plants obtain the constituents of nitrogen and carbon, if not from the atmosphere?

Editor B* claims the character of an *unique* master in the science of vegetable nutrition. So far from wishing to dispute his pretensions, I will freely acknowledge them, after he has succeeded in his experiment of cutting "three or more growths of corn-stalks, 4 feet high, from one seeding." I have grown here two crops of Indian corn from the same ground in one season; but from two seedings. In Cuba, green corn stalks (mulsho) is grown for soiling mules and cattle; but when one crop is cut, another is sown. The experiment of two cuttings might succeed in favorable seasons; but three or more cuttings could not give "increase to pay the malting."

If I were growing corn for fodder, I would always sow it in drills, so wide apart that the soil could be worked during the first week of the plants' growth. No crop pays so well for early hoeing as Indian corn. A crop is often lost in this climate by neglecting to hoe it as soon as the plants are up. S. W.

EMUR, or WHEAT BARLEY.

Mr. Editor,—At page 49 of the Com. of Patents' excellent report for 1844, I noticed a statement in relation to wheat barley, and infer, from the remarks, that there is some *humbug* about it.

The kind of barley above-mentioned has been grown in this region, and we once sowed a bushel. It has the appearance of common barley, yields well, and has a clean, handsome kernel. We could not sell it to the brewers: and not knowing any other disposition to make of it, discontinued raising. It found no favor among our farmers, and the seed may be lost. If, however, I can find any, I will send the Commissioner a sample. But I have great doubts whether it is of any particular use to the farmer. Yours, T. C. PETERS.

Darien, April 21, 1845.

The Annual Herd Book.—To accommodate such Short-Horn breeders as wish to insert pedigrees of the increase of their herds this spring, in the pages of this work, it will be kept open till the first day of July next, by which time it is to be hoped that all who wish to register their cattle will forward their respective pedigrees. The lists are fast coming in, and it will be a source of pleasure to the subscriber to make them as numerous as possible, that the array of American Short-Horns shall at least show some sort of respectability to their friends on the other side of the Atlantic. L. F. Allen.

Black Rock, N. Y., April, 1845.

HORTICULTURAL DEPARTMENT.

BY P. BARRY.

SPRING WEATHER—PROSPECTS OF THE FRUIT CROP, &c.

In this region we have had the most favorable spring for transplanting trees, and arranging and laying out gardens, orchards, and pleasure-grounds, that is within our memory; opening about the 10th of March, and continuing up to the 25th of April, with only a trivial interruption of a few frosty days. Vegetation has been brought forward gradually, and has not suffered in any locality that we have heard from, in Western New York, by severe frosts.

The last week has been unusually warm for April, and that, with the copious rains which preceded it, has caused a wonderfully rapid development of leaves and blossoms.

The country now presents a glorious and gladdening sight. Never have we seen fruit trees so promising as they now are: if we escape injury by frosts, we may reasonably anticipate the most abundant fruit crop we have seen for many a year. For this we have great reason to be thankful. Throughout Ohio, and other sections of the west, the entire fruit crop is destroyed; and even the wheat crop, by combined drought and frosts, is in many sections ruined.

For vegetable gardening, the weather has not been so favorable. It has generally been too cold for seeds to vegetate, except in the warmest soils. We have no doubt that many of the early-sown seeds have rotted; but the weather since the 24th of April has been so warm, that early vegetables will yet be matured in good season, where timely and proper exertion is made.

PROGRESS OF FRUIT CULTURE.

It is cheering to those who are laboring to promote the cultivation of fruit throughout our country, to witness the increased interest which has been manifested on this subject during the present season, compared with preceding ones.

It does now seem, that the importance of fruit culture begins to be justly estimated—at least, by a large number. If the same spirit be maintained for the next quarter of a century, of which we have not a doubt, every family in the land will be in the enjoyment of an abundance of choice fruit; and not only that, but the fruits of North America will be shipped to every country in the world. We build these calculations on the known unbounded facilities which our soil and climate afford, as well as on the indomitable energy of our people, and their unequaled enterprise.

Orchards have recently been planted, on the most extensive scale, for the purpose of raising fruit for export to China and elsewhere. No pains nor expense have been spared by the planters to procure the most desirable varieties; and we are proud to know, that Western New York has furnished some native productions that stand pre-eminent.

Our famous "Northern Spy" apple has been in great demand. All the trees that were in an way fit to plant have been sent out: many orchardists have planted one hundred trees of this variety alone.

If proper attention is bestowed to this subject, we believe that in a few years a vast number of varieties, of superior merit to the best we now know, may be brought to notice, and contribute largely to the public good. Every man who aids in introducing a new and valuable fruit, is, in some degree at least, a benefactor of his race.

SPRING-BLOOMING HARDY TREES AND SHRUBS.

For the benefit of those who take an interest in the floral department, (and we hope they are not few,) we would mention a number of beautiful trees and shrubs now in full bloom, (April 28th:)

Double-Flowering Cherry.—This, like most other cherries, is a beautifully formed tree, and is now loaded with large clusters of double flowers, as double as a cabbage rose, about the size, or a little larger, of a 25-cent. piece. This is a most desirable tree for shade and ornament.

Double-Flowering Peach.—This resembles other peach trees in form and habit, with a great profusion of double rosy blossoms; very handsome, and forms a beautiful contrast with the foregoing.

Large Double-Flowering Almond.—This tree resembles the peach; is of much stronger growth, and attains a larger growth than the peach usually does. The blossoms are just now beginning to open; the color is a beautiful rosy red. When in full bloom, every branch resembles a wreath of delicate roses. A most magnificent tree.

Pyrus Japonica, or *Cydonia Japonica*—Japan Quince.—This is a low, spreading shrub or bush, with shining, glossy foliage, and the most brilliant scarlet and rose-colored blossoms, perfectly hardy, and a regular and most profuse bloomer. This we esteem one of the most superb shrubs cultivated. We once saw about 100 feet of a hedge of this shrub, in full bloom, as it is now, and it was certainly the richest thing of the kind we have ever beheld. No shrubbery should be without it.

Double-Flowering Sloe.—This is another low-spreading bush; flowers small and double, pure white, the whole bush completely covered when in full bloom, so that it resembles a heap of snowy wreaths; flowers delicate and pretty. One of the finest and most desirable spring-blooming shrubs.

We should allude to several other beautiful spring-blooming trees and shrubs; but space will not permit us at present.

PRETTY BORDER PLANTS NOW IN BLOOM.

To those who love flowers, none are more desirable than those of early spring. The *Primula*, or *Polyanthus*, used for borders, is a beautiful plant. Our borders now are quite gaudy with them. They are hardy, and of very easy culture.

The *Pansy* or *Heart's Ease*, too, is a sweet universal favorite. It turns up its pretty little face to the first warm spring sun, and blooms on till it is again buried beneath the snow. The fine new varieties are now as large and round as a dollar, and possess the richest tints.

Phlox Setacea is another low, pretty plant, much used for borders. It is called "Moss Pink;" flowers of a fine lilac color, very showy.

Hyacinths, Narcissus, &c., are now in full bloom, and filling the garden with their delicious fragrance, which, with their varied and delicate colors and easiness of culture, renders them universal favorites.

WILD FLOWERS.

Ladies! If you wish to transfer some of the fine forest flowers to your gardens, you should commence with the season, and mark the locality of those you intend to transplant, and make such notes respecting their habits, &c., as will enable you to cultivate them successfully. Many of the prettiest are hard to be found after they have passed out of bloom. Multitudes of our native shrubs and plants possess great beauty; but because they are "wild," they are neglected. Many a door-yard, now without the shadow of a tree, shrub, or plant, might, by the expenditure of a little labor, be made at least agreeable to look at. There is no accounting for the horrid distaste which many people seem to have for anything or everything that is common. We have known people despise the most rare and beautiful plant, because it was "similar to something that grew in the woods." We are passionately fond of rare exotics; but we love not our own beautiful wild flowers the less. We wish that people of some refined taste would set an example in this respect, and endeavor to diffuse a taste that cannot fail to brighten and beautify rural life. If space permitted us, we would enumerate some of the fine spring flowers worthy of culture; but we would say, "Go to the woods and fields, and see them, and do as we have suggested."

THE FLOWER GARDEN.—Inquiries.

Annual flower seeds may now soon be sown. The ground should be rich and mellow.

Verbenas, Petunias, Phlox Drummondi, and *Chinese Monthly Roses,* and such plants as give a profusion of flowers from May till November, should now be planted out.

We have heard innumerable inquiries from those who were about improving their gardens in the way of ornamental shrubs and plants, what they should get. We would now suggest, that those who contemplate future improvement should make notes of the name and appearance of every beautiful tree, shrub, or plant they see or wish to obtain, so that they may be able to get it when the season comes.

CATERPILLARS.

It is now almost too late to guard against these destructive insects. We have noticed unusual quantities of them on our trees this spring.

Those who may have neglected it so far should, without a moment's delay, examine their orchards ann gardens, every tree around their premises, and destroy the insects before they make their way into the leaves. On young trees, they are within the reach, and easily killed in any way; on those of considerable height, a piece of cloth or sponge may be fastened on the end of a pole of sufficient length, and this, dipped in oil or turpentine, will kill them instanter.

Insects.—Those who wish to be successful in raising fine fruit and vegetables, must be continually on the alert to guard against the ravages of insects. You may lose your fine bed of cabbages in an hour, by the want of proper vigilance; and so it is with every thing else. It becomes every man who tills the soil to study the nature and habits of insects; and this is a subject which most of us, to our very great disadvantage, are wofully ignorant of. We must get Harris, or some other good work on this subject, and *study.*

N. Y. STATE AGRICULTURAL SOCIETY.

Cattle-Show and Fair for 1845, *to be held at Utica, Sept.* 16, 17, *and* 18.

LIST OF PREMIUMS FOR 1845.

ON FARMS.

For the best cultivated farm of not less than 50 acres, exclusive of woodland, regard being had to the quantity of produce, the manner and expense of cultivation, and the actual profits:

First premium.....$50 | Second ditto $30
Third do.....20.

The persons making application for these premiums, must submit written answers to a series of questions, which will hereafter be published.

ON ESSAYS.

For the best series of Essays on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of agriculture.....$100
For the best Agricultural Text-book for schools..... 100
For the best Text-book on Horticulture..... 50
For the best Essay on Subsoil Plowing, with the results of actual experiments in the state of New York 20
For the best Essay on Draining, with details of the results of actual experiments, showing the expense, and supposed increased value of the land 10
For the best Essay on Irrigation 10
For the best Essay on the Culture and Manufacture of Silk ... 20
For the best Essay on the prevalent Disease in Potatoes 20

CATTLE. Class I—*Durhams.*

Best bull, over 3 years old, ..$15 | Second best.....$10
Third best..diploma.
Best bull, 2 years old .....10 | Second best ..... Colman's tour
Third best..diploma.
Best yearling bull .....10 | Second best .....Colman's tour
Third best..diploma.
Best bull calf .....Col. tour | Second best .....Diploma
Best cow, over 3 years old.. 15 | Second best 10
Third best..diploma.
Best heifer, 2 years old .....10 | Second best .....col. tour
Third best..diploma.
Best yearling heifer ..... 10 | Second best.....col. tour
Third best..diploma.
Best heifer calf .....col. tour | Second best .....diploma

Class II.—*Herefords.*

Best bull, over 3 years old .. 15 | Best cow 15
Second best ..... 10 | Second best 10
Best bull between 1 and 3 years old ..... 10 | Best heifer, between 1 and 3 years old 10
Second best .....diploma | Second best.....dip oma

Class III.—*Devons.*

Best bull, 3 years old..... 15 | Best cow 15
Second best ..... 10 | Second best..... 10
Best bull, between 1 and 3 years old..... 10 | Best heifer, between 1 and 3 years old 10
Second best .....diploma | Second best .....diploma

Class IV.—*Ayrshires.*

Best bull over 3 years old... 15 | Best cow 15
Second best ..... 10 | Second best..... 10
Best bull, between 1 and 3 years old ..... 10 | Best heifer, between 1 and 3 years old 10
Second best .....diploma | Second best.....diploma

Class V.—*Crosses of Native and Improved.*

Best cow, over 3 years old... 15 | Best heifer, 2 years old 15
Second best ..... 10 | Second best..... 10
Third best.....vol. transactions | Third best.....vol. transactions

Class VI.—*Native cattle.*

Best cow, over 3 years old .. 15 | Best heifer, 2 years old 15
Second best ..... 10 | Second best 10
Third best.....vol. trans | Third best .....vol. trans

WORKING OXEN.

Best team of 20 yoke from any one county 25
Second best 15
Best yoke of oxen..... 15
Second best 10
Third best .....vol. trans

Best ten yoke of oxen from any one town 20
Second best 10
Third best .....col. tour

In awarding the premiums on working oxen, the single teams will be subjected to a trial on a loaded cart or wagon, under the direction of the committee; and particular reference will be had to the matching, training, and docility of the animals, as well as their general appearance.

THREE-YEAR-OLD STEERS.

Best yoke ..... 15 | Second best 10
Third best, diploma.

TWO-YEAR OLD STEERS.

Best yoke ..... 10 | Second best ..... col. tour
Third best, vol. trans.

YEARLING STEERS.

Best yoke ..... 8 | Second best .....col. tour
Third best, vol. trans.

FAT CATTLE.

Best pair fat oxen ..... 15 | Second best 10
Third best, col. tour.
Best ox, cow, or heifer .... 10 | Second best 5
Third best, vol. trans.

A fat ox, taking a premium as one of a pair, cannot compete singly for another premium.

HORSES.

Best stallion, 4 years old... 20 | Third best .....diploma
Second best ..... 10 | Best gelding horse 10
Third best .....vol. trans | Second best .... vol. trans
Fourth best ..... diploma | Best breeding mare..... 20
Best stallion, 3 years old... 15 | Second best 10
Second best ..... 10 | Third best ..... diploma
Third best ..... diploma | Best mare, 3 years old..... 10
Best pair matched horses .. 10 | Second best ..... vol. trans
Second best ...2 vols. trans | Third best ..... diploma

The variety of horses which possesses size, strength, and endurance for field labor, combined with that action which qualifies them for the carriage or saddle—in short, the "horse of all work"—is probably the most profitable class which our farmers can now engage in rearing; and to such, therefore, will the preference of the society be given. Horses taking premiums in pairs cannot compete singly for the premium for geldings.

SHEEP.

CLASS I.—*Long-Wooled.*

Best buck ..... 10 | Best five ewes 10
Second best .....col. tour | Second best ..... col. tour
Third best ..... diploma | Third best ..... diploma
Best pen 5 lambs, 5.

CLASS II.—*Middle-Wooled.*

Best buck ..... 10 | Best five ewes 10
Second best ..... col tour | Second best .....col. tour
Third best ..... diploma | Third best ..... diploma
Best pen 5 lambs, 5.

CLASS III.—*Merinoes and their grades.*

Best buck ..... 10 | Best five ewes 10
Second best .....col. tour | Second best ..... col. tour
Third best .....diploma | Third best ..... diploma
Best pen 5 lambs, 5.

CLASS IV.—*Saxons and their grades.*

Best buck ..... 10 | Best 5 ewes 10
Second best .....col. tour | Second best ..... col. tour
Third best ..... diploma | Third best ..... diploma
Best pen 5 lambs, 5.

Class I is designed to include the Leicesters, Lincolns, Cotswolds, and all the varieties of sheep which furnish the quality of wool suitable for combing. Class II includes the Southdown, Norfolk, Dorset, Native, &c.; and Classes III and IV, all those generally denominated Merinos and Saxons, whether of pure or mixed blood.

CLASS V.—*Fat sheep.*

Best ..... 10 | Second best .....col. tour
Third best, vol. trans.

Applicants for the premiums on fat cattle and sheep, must furnish statements of the manner of feeding the animals, and the kind, quantity, and cost of the food.

SWINE.

Best boar, over 10 months . 10 | Best sow 10
Second best ..... col. tour | Second best .....col. tour
Third best ..... diploma | Third best ..... diploma
Best lot of pigs under 10 months, not less than 4 in No. ..col. tour
Second best...diploma.

In awarding premiums on hogs, reference will be had not merely to size and present condition, but to that proportion between bone and meat which promises the greatest value from the least amount of feed.

POULTRY.

For the best lot of Dorking fowls, not less than 3, one cock and two hens..... 3 | For the best pair of ducks .. 3
Do do turkeys. 3
Do do geese... 3
For the best lot of black Poland, not less than 3..... 3
For the best lot of large not less than 3 3
For the best and greatest variety of fowls, by any one individual 10

VEGETABLES.

For 6 best stalks celery .... 2 | 2 best purple egg plants ... 1
3 best heads cauliflower.... 2 | Best half peck Lima beans.. 1
3 best heads broccoli ..... 2 | Best " Windsor do. 1
12 best white table turnips. 1 | Best bunch double parsley.. 1
12 best carrots ..... 1 | 3 best squashes 1
12 best table beets..... 1 | Largest pumpkin 1
12 best parsnips ..... 1 | 12 best ears seed corn..... 1
12 best onions ..... 1 | Best half-p'k table potatoes, 2
3 best heads cabbage ..... 1 | Second best " " 1
12 best tomatoes ..... 1 | Best variety seedling " 5

Discretionary premiums will be awarded on choice garden products not enumerated above.

FARM IMPLEMENTS.

Best plow ..... 15 | Best horse-power machine .. 10
Second best .. silver medal | Best cultivator ..... col. tour
Third best ..... diploma | Second best ..... diploma
Best subsoil plow ..... 10 | Best drill barrow ..... col. tour
Best farm wagon ..... 10 | Second best .... vol. trans
Second best ..... vol. trans | Best farm horse cart ....col. tour
Best half-doz. hand rakes . dipl | Best ox cart ..... col. tour
Best grain cradle ..... 3 | Best horse rake ..... col. tour
Second best .....diploma | Second best ..... vol. trans
Best half doz. hay forks .. dipl | Best half doz. grass scythes ..dipl
Best harrow .....col. tour | Best do cradle do ...dipl
Second best ..... vol. trans | Best do dung forks .....dip
Third best ..... diploma | Best thrashing-machine 10
Best fanning mill . silver medal | Second best .....vol. trans
Second best ..... vol. trans | Third best .....diploma
Third best .... diploma | Best straw-cutter ...silver medal
Best improved ox-yoke..col. t'r | Second best .... vol. trans
Second best .... diploma | Third best .... diploma
Best axe ..... 2 | Best clover-machine 10
Best farm harness .... 10 | Second best .... diploma
Best saddle .... 5 | Best hoe 2
Best machine for cutting corn-stalks .... 5 | Best flax and hemp dressing-machine 10

Articles not presenting any new and valuable improvements, will not be entitled to premiums. Implements and machines must be tested as far as possible, in the presence of the committee.

BUTTER.

For the best lot made from five cows, in 30 successive days—quality as well as quantity considered—25 lbs. of the butter to be exhibited. .$25
Second best .... 15 | Third best 10

Compliance with the following rules will be strictly required of those who compete for these premiums, viz.: The cows to be fed on pasture, green corn-stalk fodder, or grass cut for the purpose, only. No grain, roots, or slops, of any description, to be fed during the trial, nor for 15 days preceding the trial. The cows to be owned by the competitors previous to the 1st day of April, 1845. The milk drawn from the cows on some one day during the trial to be accurately weighed and measured, and the result stated. A sample of at least 25 lbs. of the butter so made to be exhibited at the Fair at Utica, for the inspection of the examining committee. The particular breed of the cows to be stated, if known, and method of making and preserving the butter. A certificate signed by the owners of the cows, and at least one other person who assisted in milking and making the butter, detailing the above particulars, will be required.

The Executive Committee believe, that few if any premiums offered on neat cattle will result in greater benefit to the farming interest than those on the products of the dairy, providing fixed rules, requiring uniformity of feed, be faithfully enforced. The increased list of premiums is offered with the hope it will induce extensive competition throughout the state. Let this object be accomplished, and an opinion approximating to accuracy may be formed by the public as to which of the several breeds of cows are the best for dairy purposes; and from those that prove the best, further improvement may be made.

Best 25 lbs. made in June ... 10 | Second best ... silver medal
Second best ... col. tour | Third best ... do
Third best ... vol. trans | Fourth best ... do
Best 50lbs. made at any time, 15 | Fifth best ... do

The claimants for premiums must state in writing the time when it was made; the number of cows kept on the farm; the mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substances have been employed.

The butter offered for premiums must be presented in butter tubs, jars, or firkins.

CHEESE.—*Not less than* 100 lbs.

One year old or over.

Best .... 15 | Fourth best, silver medal
Second best .. silver medal | Fifth do, do
Third do .. do

Less than one year old.

Best	 15	Fourth best	silver medal
Second and third	silver medals	Fifth best	do

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese was made from one, two, or more milkings; whether any addition is made of cream; the quantity and kind of salt used; the quantity of rennet used, and the mode of preparing it; the mode of pressure, and the treatment of cheese afterwards.

MAPLE SUGAR.

Best 25 lbs.	... 15	Third best	... colman's tour
Second best	... 10	Fourth best	... diploma

CORN-STALK SUGAR.

For the best experiment in the manufacture of sugar from corn-stalks, from one acre of northern corn cultivated for the purpose, so as to obtain the greatest quantity of sugar...25.

The process of manufacturing and clarifying must be particularly stated, in reference to the maple and corn-stalk sugar.

SILK.

Best specimen manuf'd ...	15	Second best,	colman's tour
Second best	 10	Third best,	Diploma
Third best	..col. tour	Best half-bus. cocoons, 1845,	10
Fourth best	vol. trans	Second best,	col. tour
Best pound reeled silk	... 10	Third best,	diploma

DOMESTIC MANUFACTURES.

Best woolen blankets, $5; second, 4; third, 3.

Best ten yards flannel, 5; second, 4; third, 3.

Best ten yards woolen cloth, 5; second, 4; third, 3.

Best woolen carpet, 5; second, 4; third, 3.

Best tow cloth, 15 yards, 1; second, diploma.

Best ten yards linen, 3; second, 4; third, 3.

Best ten yards linen diaper, 5; second, 4; third, 3.

Best hearth-rug, 5; second, 4; third, 3; fourth, 2; fifth, 1; sixth, diploma.

Best ten yards kersey, 3; second best, 2; third, 1.

Best rag carpet, 15 yards, $3; second, 2; third, 1.

Best double carpet coverlet, 4; second, 3; third, 2: fourth, 1.

Best patr woolen knit stockings, 2; second, 1; third, diploma.

Best wove woolen stockings, 2; second, 1; third, diploma

Best cotton wove stockings, 2; second, 1; third, diploma.

Best lb. linen sewing thread, 2; second, 1; third, diploma.

Best linen woven stockings, 2; second, 1; third, diploma

Best linen knit stockings, 2; second, 1; third, diploma.

Best knit cotton stockings, 2; second, 1; third, diploma.

FRUITS.

For the greatest variety of table apples, 5.

For the second greatest, ... 3 | For the third greatest, vol. trans.

For the best twelve sorts, not less than three of each, 3

Best new seedling apple, 3.

For the greatest variety of table pears, 3.

For the second greatest,	....	vol. transactions.
For the greatest variety of winter pears,		" "
For the best twelve quinces,	....	" "
For the best twelve peaches,	....	" "
For the best twenty-four plums,	....	" "
For the best six bunches of native grapes,		" "
For the best six bunches of foreign grapes,		" "

FLOWERS.

For the greatest variety and quantity...gold medal.

For the second greatest ... 5 | For the third greatest, vol. trans

For the best floral ornament...silver medal.

For the second best ... 3 | For the best seedling dahlia, 3

For the third best vol. trans | For the second best ... 2

For the best twenty-five varieties of dahlias, 5.

For the second best ... 3 | For the third best, vol. trans.

PLOWING MATCH.

First premium, ... 15 | Third premium ... 10

Second do ... 12 | Fourth do, col. tour

Fifth...vol. transactions.

For boys under 18 years of age.

First premium ... 10 | Second ... 5

Third...vol. transactions.

Each competitor will be required to plow one-fourth of an acre of sward land in 75 minutes, the furrows not less than 10 inches wide and 6 deep; plowman to drive his team.

FIELD CROPS.—*At Winter Meeting.*

Best crop of wheat, not less than two acres, $15.

Second best ... 10 | Third best 2 vols. trans

Best two acres of spring wheat, 15.

Second best ... 10 | Third best, 2 vols. trans

Best crop of Indian corn, not less than two acres, 15.

Second best .... 10 | Third best 2 vols. trans.

Best crop of barley, not less than two acres, 10.

Second best ... 5 | Third best, vol. trans

Best crop of rye, not less than two acres, 10.

Second best, ... 5 | Third best, vol. trans.

Best crop of oats, not less than two acres, 10.

Second best .... 5 | Third best vol. trans

Best crop of potatoes for table, not less than one acre, 10.

Second best ... 5 | Third best, vol. trans

Best crop of potatoes, quantity considered, not less than one acre, 10.

Second best ... 5 | Third best, vol. trans

Best crop of sugar beets, not less than half an acre, 10.

Second best .... 5 | Third best vol. trans

Best crop of mangel wurzel, not less than half an acre, 10.

Second best ... 5 | Third best, vol. trans

Best crop of ruta baga, not less than one acre, 10.

Second best ... 5 | Third best, vol. trans

Best crop of carrots, not less than one acre, 10.

Second best ... 5 | Third best, vol. trans

Best crop of peas, not less than one acre, 10.

Second best ... 5 | Third best, vol. trans

Best acre of corn for fodder, 5.

Best half-acre of hops, 5 | Best half-acre of tobacco 5

Best " flax, 5 | Best acre of cabbage, 5

Best acre of broom corn, 5.

Best acre of clover seed, 10.

Second best, col. tour | Third best, vol. trans

Best acre of grass seed, 10.

Second best, col. tour | Third best, diploma

Those who present claims to premiums for farm crops, must state in writing the following particulars: the condition of the soil at the commencement of cultivation for the crop; the previous crop and cultivation, and quantity of manure used upon it; the quantity and kind of manure the present season; the quantity and sort of seed used; the time and manner of sowing, cleaning, and harvesting the crop; the amount of the crop, determined by actual weight or measurement; and the expense of cultivation. The land shall be measured by some surveyor, who shall swear to the correctness of his survey, and that it was made with a chain and compass; and the claimant of the premium, with two other persons who assisted in measuring, shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor—and a sample of grain shall be presented at the annual meeting, with the oath of the applicant, that the same is a fair sample of the whole crop.

MISCELLANEOUS.

Wrought-iron gate, with cast-iron pillars	... 10
Best iron wheelbarrow	silver medal
Ornamental cast-iron vase, on pedestal,	... 8
Best sample drain-tile	silver medal
Best quarter of an acre ozier willow	... 8

DISCRETIONARY PREMIUMS

Will be awarded for such implements, products, &c., not enumerated, as shall be deemed worthy of notice or encouragement.

REGULATIONS.

The premiums for essays and agricultural implements will be open to citizens of other states; all others will be confined to residents of this state, who are members of this society, or who may become so by the payment of one dollar on entering their articles.

The trial of plows will take place at Utica, on Tuesday, the 15th day of September.

No premiums will be paid on any animals or articles taken away before the close of the Fair.

Premiums not claimed within four months after they are awarded will be considered as donations to the society.

All persons who intend to exhibit cattle, horses, sheep, or swine should give notice to Theodore S. Faxon, Utica, or Luther Tucker, Recording Secretary, Albany, previous to the 10th of September, that the necessary arrangements may be made for their accommodation; and all animals must be on the ground by nine o'clock, A.M. of the 17th September.

All those who intend to compete for the premiums on agricultural implements, butter and cheese, sugar, cocoons, silk, &c should have their specimens on the ground on the 16th, that they may be deposited in their appropriate places, and the rooms suitably arranged on the day previous to the Fair.

Applicants for premiums are requested to pay particular attention to the notes attached to the premiums on fat cattle and fat sheep, butter and cheese, field crops, maple sugar, &c.

The statements required from those who compete for field crops must be sent to Luther Tucker, Recording Secretary, Albany, previous to the 1st of January, 1846, and the premiums will be awarded at the annual meeting of the society, on the third Wednesday of January.

Competitors for the premiums on essays must forward their manuscripts to the Recording Secretary, Albany, previous to the 1st of January, 1846, free of postage.

No premium will be awarded unless, in the opinion of the judges of the class in which it is offered, the animal or article is worthy of such premium.

Prize animals and implements at the previous exhibitions, will be allowed to compete for the prizes; but they must receive a higher prize, or in a different class, to entitle them to a premium. Should the same premium heretofore given them be awarded, they will receive a certificate to that effect instead of the prize.

Animals and other articles offered for competition must be labeled with the names and residence of the owners at full length

No viewing committee, with the exception of the committee on discretionary premiums, shall award any discretionary premium without the previous permission of the executive board, expressed through the President.

For the Genesee Farmer.

Mr. Editor,—A correspondent of yours, over the signature of "Inquirer," in attempting to give an abstract of my statement to the State Agricultural Society, in relation to my flock of Merino sheep, for which a gold medal was awarded me, has fallen into so many & so gross errors, that instead of correcting them in detail, I forward you the report of the committee of the society, which embodies my statement referred to, with the request that you publish it, accompanying this.

I presume that "Inquirer" wrote in good faith: one finds enemies enough in this world of ours without *making* them voluntarily—without driving friends or indifferent persons into that attitude, by misconstruction and suspicion. But I feel constrained to say to "Inquirer," that farmers—especially those who are banded together to improve and dignify their calling—while they may be influenced by honorable emulation, should be chary, not only of *wilful* misstatements injurious to each other's reputations, but also of those *careless*, unintentional ones, which, uncorrected, are just as effectual to rob us of

The immediate jewel of our souls

as the envenomed falsehood of the deliberate slanderer.

The statement below embodies all the important information sought by "Inquirer." As to what "constitutes the peculiar excellence of my flock," it would perhaps be dificult to satisfy his curiosity on paper. This he could best do by inspection and comparison. To effect the former, he is invited to visit me; but if the latter would be more satisfactory—if "Inquirer," or *any of his friends* in Western New York should invite me to exhibit ten or a dozen pure-blood Merinoes against an equal number now owned by any one of them, at the Utica Fair, all I can say is, that I should cheerfully accede to so reasonable a request, only stipulating that the invitation should be made to me within thirty days, that my arrangements might be shaped to such an end.

Very respectfully, your obedient servant,
HENRY S. RANDALL.

"Sheep.—The committee, consisting of Major Kirby, J. M'Donald, M'Intyre, and C. N. Bement, to whom was referred the statement of Mr. Henry S. Randall, of Cortland, for a premium 'for the best-managed flock of sheep,' awarded him a gold medal worth $12. The statement concerning this flock is so well calculated to excite the attention of wool-growers, that the account of Mr. Randall is submitted in preference to any abstract that could be made:

MR. H. S. RANDALL'S STATEMENT.

"In the winter of 1843–4, I wintered in a separate flock fifty one ewes over one year old, two ewe lambs, two rams, one of them one, and one of them two years old. Of the ewes over one year old, twenty-eight were full-blood Merinoes; twenty-three were half-blood Merinoes and half-blood South-Down; the two ewe lambs were three-fourth blood Merino and one-fourth blood South Down; and the two rams were full-blooded Merinos. The flock were kept as follows, through the winter: They were fed with hay morning and night, and were, as a general rule, required to eat it up clean. At noon the flock were daily fed three bundles of oats and barley, (which had grown mixed, say three parts oats and one part barley,) until the 25th of December, after which they received four bundles of oats. The grain was light and shrunken. They received no hay at noon during the winter, and usually consumed all the straw of the grain fed to them. They had a good shelter, and access to pure water at all times. From this flock I raised 53 lambs. The full-blood Merinoes, including two rams, and the two three-fourth blood lambs, (in all 32,) sheared one hundred and eighty-six pounds and four ounces of washed wool, which I sold at forty-eight cents per pound. Four of the full-bloods had two-years fleeces on. The half-blood merinoes and half-blood Southdowns, (twenty-three,) sheared eighty and one-half pounds of washed wool, seventy one pounds of which I sold at thirty-eight cents per pound. During the summer of 1844, the flock were kept in good ordinary pasture, and salted once a week. Out of this flock I have sold during the past summer and fall, ten full blood Merinoes over one year old and twenty full-blood Merino lambs for five hundred and twenty-nine dollars; and twenty-three half-blood Merino, and half-blood Southdown ewes, and sixteen three-fourth blood Merino and one-fourth blood Southdown lambs, for one hundred and ninety-seven dollars.

Expense of keeping 55 sheep one year,	$82 50
Received for wool, estimating that kept at the same price with that sold,	$119 99
Received for those sold,	726 00
	845 99

Remaining on hand, 39 of this flock.

I have submitted no estimate of the original value of the flock, not deeming it necessary, as the diminution of the original number is here stated.

HENRY S. RANDALL."

We cheerfully comply with the request of Col. Randall, knowing him to be one of the most ardent, indefatigable, and enlightened friends of agriculture and its concomitants that our state can boast. We trust to hear from him as a correspondent as often as is convenient.—Ed. Farmer.

The Wheat Insect.—A correspondent of the New York Mirror gives an experiment made by himself, which serves to throw some light upon the nature and character of the wheat insect. He says, "In the spring of 1844, I placed a bag containing half a bushel of white flint wheat, in a seed drawer, under glass, and near the furnace of my green house. On the 6th of March, 1845, I opened the bag, and to my surprise, found thousands of living insects, such as are now presented you—some were on the point of leaving the kernel, others were just commencing to eat through, and many were perfectly formed, and running about in all directions. Six years ago I used to soak my early grains in salt brine, for the purpose of destroying the eggs of the insect, which I assured my neighbors, much to their amusement and unbelief, was ensconced in the kernel. Now, by accident, the fact is made manifest. The insect would not have appeared till June, perhaps, had the wheat been sown. The warm situation it occupied in the greenhouse brought it thus early to maturity."

Mr. Coleman's Report.—The third number of Mr. Coleman's Report on European Agriculture is now in press in Boston, and will soon be ready for delivery. It is spoken of as being more interesting than either of the previous numbers

AURORA AGRICULTURAL INSTITUTE,
AT AURORA, CAYUGA CO., N. Y.

THE late Judge Buel, in one of his last public addresses, in speaking of agricultural schools, says, "I pretend not to the spirit of prophecy, yet I venture to predict, that many who now hear me will live to see professional schools of agriculture established in our land—to see their utility extolled, and to be induced to consider them the best nurseries for republican virtues, and the surest guaranty for the perpetuity of our liberties. They should be established—will be established—and the sooner they are established, the better for our country."

The undersigned, being satisfied of the great public utility of such institutions, and feeling an earnest desire for their early introduction into our state, have, in order to meet what now seems to be a decided public sentiment in their favor, and call or their establishment, resolved to open such a school, and have already made arrangements therefor.

The Farm upon which the Institute is located is situated in and directly adjoining the beautiful village of Aurora, on the east bank of Cayuga Lake, in Cayuga County, sixteen miles from Auburn, and twelve miles from Cayuga Bridge and the Auburn and Rochester Railroad. The communication is direct with Auburn by stage, and with the Railroad by steamboat, in summer. The farm contains 212 acres, in a good state of cultivation. The soil is various; fruit abundant; buildings are good—part nearly new—and very pleasantly situated. The location is considered one of the most desirable of the many beautiful situations on the borders of the Lake, commanding an extensive and varied prospect of its waters and the surrounding country—and altogether admirably adapted to the end in view.

It is the intention of the undersigned that this Institution shall afford every facility for young men to make themselves thoroughly acquainted with the principles of agricultural science, and their judicious application to practical husbandry; and particularly to afford young men from our large towns the most favorable opportunity for preparing themselves for agricultural pursuits. It is also their purpose to some extent to test, by actual experiment, the correctness of principles in agriculture now received, but not yet well established, and report the same to the public.

The young men will be received into the family of the Principal, and be kept under his immediate and constant supervision. Particular regard will be had for their moral culture, and a strict observance of all rules and regulations required.

Terms, $150 a year, payable quarterly, in advance.

No pupils under fourteen years of age will be received. Applications for admission may be made to the principal, from whom any further information may, on request, be obtained.

CHARLES C. YOUNG, A.M.,
Proprietor and Principal.
ALEXANDER THOMPSON, M.D.,
Lecturer on Botany, Geology, Agricultural Chemistry, &c.
DAVID THOMAS, *Visitor & Adviser.*

REFERENCES.

B. P. Johnson, Esq., Rome, Oneida Co., President of the State Agricultural Society; Daniel Lee, Esq., Buffalo, Corresponding Secretary of the State Agricultural Society: James S. Wadsworth, Esq., Geneseo; John Thompson, Jr., Esq., Rohester; W. E. Sill, Esq., Geneva; J. S. Seymour, Esq., Auburn; Hon. B. R. Wood, Albany; Joel B. Nott, Esq., Albany; Luther Tucker, Esq., Albany, Rec. Secretary of the State Agricultural Society; Joel Rathbone, Esq., Albany, Rev. Washington Rossevelt, New York; Wm. Curtis Noyes, Esq., New York; B. R. McIlvaine, Esq., New York; W.W. Ehester, Esq., New York; B. W. Bouney, Esq., New York; A. B. Allen, Esq., New York. April, 1845.

SALE of FULL-BLOODED NORMAN HORSES

THE Subscriber having relinquished farming, will offer at public vendue, at his farm in Moorestown, Burlington County, New Jersey, nine miles from Philadelphia, *on Tuesday the 28th of May next*, his entire stock of Norman Horses; consisting of two imported Stallions, "Diligence" and "Buonaparte;" two imported Mares; two full-blooded Fillies, three and four years old; two Fillies by Diligence, from a half-blood Canadian mare, three and four years old; and one Filly four years old, by Diligence, from a well-bred English mare, broke and kind to harness.

The undersigned deems it unnecessary to speak at large of the *quality of these horses*, so much having been said of this particular importation, (which is believed to be *the only one ever made to the United States,*) in all the principal agricultural papers. In a few words, *they are the Canadian Horse on a larger scale, combining the form, activity, and hardihood of that well-known race with greater size and strength.* "Diligence" has been a remarkably successful stallion; he has been exhibited at the Fairs of the Pennsylvania and New York Agricultural Societies, where he was not entitled to compete for the premiums, but received the highest encomiums from the committees. At the Fair of the American Institute, in New York city, in October last, he received the silver medal of the institute.

It is expected that a large number of the Colts of Diligence will be on the ground on the day of sale, some of which, no doubt, may be purchased.

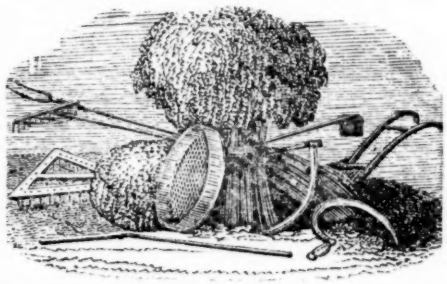
EDWARD HARRIS.

Moorestown, Burlington Co., N. J., March 15, 1845.

SHAKER GARDEN SEEDS.

THE Subscriber having been appointed Agent for the "United Society," at New Lebanon, is now opening a large assortment of these deservedly popular and excellent Seeds, which are confidenly recommended for purity and accordance with the label.

April 1. L. B. SWAN, 18 Buffalo-st.



ROCHESTER SEED STORE, FRONT-S T .,
BY B. F. SMITH & CO.

AWARE of the important relation which the seedsman holds to the whole farming community, and that on his honor and veracity the crop and profit of a season in some measure depend, the greatest care has been used in selecting the seeds offered at this establishment for the ensuing year, and they can be relied upon as pure and genuine, carefully selected and raised from the very best varieties, and properly cured. Many kinds were raised in the immediate vicinity of this city, by C. F. Crosman, and under the inspection of the proprietors; others were raised by experienced seedsmen; while those varieties of foreign growth which experience has shown are the best, have been procured from the most responsible sources abroad.

The collection has been greatly enlarged this season, in order to accommodate all who wish to try whatever is new, rare and curious.

FIELD SEEDS.

Red Clover, large and medium.

Timothy, White Dutch Clover, Oats, Barley, Seed Corn, Spring Rye, Italian and Siberian Spring Wheat, Early June Potatoes, Marrowfat and Field Peas.

VEGETABLE GARDEN SEEDS.

A choice and select variety of Peas, Beans, Cabbage, Cauliflower, Celery, Beets, Cucumbers, Melons Radish, Squash, &c., &c., Summer Savory, Thyme, and Sweet Marjoram.

FLOWER SEEDS.

The collection of Annual and Perennial Flower Seeds contains many new and choice varieties, raised for us by A. Stone, Esq., of this city; making our assortment altogether superior to any ever before offered in this city.

AGRICULTURAL & HORTICULTURAL TOOLS.

At our Warehouse, adjoining the Seed Room, may be found an extensive and complete assortment of Agricultural and Horticultural Implements, embracing every tool used in the cultivation of the Farm and Garden

MASSACHUSETTS PLOWS.

We also have on hand 150 of the celebrated Massachusetts Plows, made in a superior manner from second-growth eastern timber, which we shall sell at a reduced price. B. F. SMITH,

April 1. JAMES P. FOGG.

MOUNT HOPE BOTANIC GARDEN AND NURSERIES, ROCHESTER, N.Y.

THE Proprietors respectfully announce, that their present stock of *Fruit and Ornamental Trees, Shrubs, and Plants* is unusually fine.

The Collection of Fruits comprises the most esteemed American and Foreign varieties: the trees are handsome, thrifty, and of the most suitable age and size for successful transplanting; and being propagated with the most scrupulous care by the proprietors themselves, either from bearing trees in their own grounds, or from others of undoubted correctness, can with confidence be recommended as *genuine.*

A choice collection of Pears, comprising the most esteemed European varieties, selected by one of the proprietors personally in the best nurseries of France, is also offered: they are on Quince Stocks, intended for growing in the pyramidical form, and will bear the year after transplanting; they may be planted six feet apart, and are consequently admirably adapted for garden culture.

Over 2,000 trees of the valuable native apple the "Northern Spy" are yet on hand: this is generally acknowledged to be one of the best varieties cultivated.

The collection of Roses is very fine, including a very choice assortment of Standard or Tree Roses, 4 to 6 feet high: these are beautiful objects for lawns or borders—most of them are perpetual, or ever-blooming.

A large and splendid stock of *Green-house Plants*, including the finest *new* varieties of Roses and Geraniums, &c., are on hand, and are offered at low prices.

Trees, Shrubs, Plants, &c., securely packed for transportation to any part of the country.

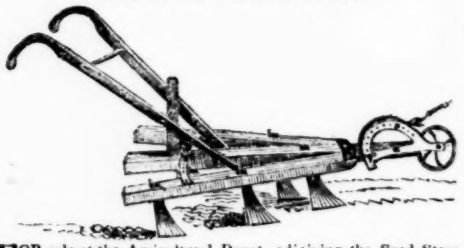
Priced Catalogues sent gratis to all post-paid applications.

The Public are respectfully invited to visit the establishment—location, nearly opposite the Mount Hope Cemetery.

All orders and communications must be addressed, post-paid, to
ELLWANGER & BARRY.

N.B. Scions of the "Northern Spy" apple, and other choice varieties, will be furnished in small quantities.

IMPROVED CULTIVATORS



FOR sale at the Agricultural Depot, adjoining the Seed Store, Front-street. B. F. SMITH & CO.

SEEDLING POTATOES.—We have a few bushels of Langworthy's Premium Seedling Potatoes for sale at the Rochester Seed Store, New Block, Front street. B. F. SMITH & CO.

WORM BRUSHES, for the purpose of destroying Worms and Caterpillars on Fruit Trees, for sale by
B. F. SMITH & CO.,
Bew Brick Block, Front-street.

BAGS! BAGS! BAGS!—I have a large stock of GRAIN BAGS on hand, such as Farmers and Millers will want; and shall be glad to exhibit them for sale at less prices than they have ever been sold in Western New York.

To be found at the well-known Hardware Store of E. WATTS, corner of Exchange and Buffalo-streets.

March 1, 2845. *JAMES H. WATTS.*

THE IMPORTED HORSE "ALFRED,"

WHICH drew the first premium at the N. Y. State Agricultural Fair, held in Rochester, in 1843, will stand for Mares this season, (1845,) at the following places, viz.:

At G. FORDON'S, near Geneva—Monday and Tuesday, April 28 and 29; ditto ditto, May 12 and 13; ditto ditto, May 26 and 27; ditto ditto, June 9 and 10; ditto ditto, June 23 and 24; ditto ditto, July 7 and 8.

At the OLD NORTON FARM, East Bloomfield—Thursday and Friday, May 1 and 2; ditto ditto, May 15 and 16; ditto ditto, May 29 and 30; ditto ditto, June 12 and 13; ditto ditto, June 26 and 27; ditto ditto, July 10 and 11.

At the AMERICAN HOTEL, State-street, Rochester—Monday and Tuesday, May 5 and 6; ditto ditto, May 19 and 20; ditto ditto, June 2 and 3; ditto ditto, June 16 and 17; ditto ditto, June 30, July 1; ditto, ditto, July 14 and 15.

At JOHN BAKER'S, Macedon—Thursday and Friday, May 8 and 9; ditto ditto, May 22 and 23; ditto ditto, June 5 and 6; ditto ditto, June 19 and 20; ditto ditto, July 3 and 4; ditto ditto, July 17 and 18.

TERMS—Ten Dollars to insure a foal, payable on the 1st of March, 1846. Persons parting with Mares, before fooling time, will be held responsible for the services of the horse.

GEORGE FORDON,
JOHN BAKER.

April, 1845.

STOCK EXCHANGE—CATTLE, &c.

THE SUBSCRIBER has on hand a choice collection of improved thorough-bred cattle, embracing, already, superior specimens of the Short-Horn Durham and the Hereford, and a sample of the Holderness, &c., and he intends adding to his stock so as to be able to supply farmers and breeders in Western New York, Canada, or the Western States, who may wish to purchase Bulls, Cows, Young Stock, Sheep, &c., of the best breeds and most improved varieties, at reasonable prices. His design is, to establish a sort of Depot, or Stock Exchange, where orders can be supplied for any of the improved breeds of Thorough-bred, and for superior Grade animals, and where those who have choice stock of this character for sale can find a market for them, on commission or otherwise.

REFERENCES.—Editor of the "Genesee Farmer," L. B. Langworthy, Esq., and T. Weddle, Esq., Rochester. Hon. E. Corning, C. N. Bement, Esq., and Editors of the Cultivator, Albany; Hon. E. Mack, Ithaca; J. S. Wadsworth, Esq., Geneseo; Judge Leland, Steuben county; Hon. D. Lee, Buffalo; Hon. J. McCollum, and W. Parsons, Esq., Lockport; M. B. Bateham, Esq., Editor of the Ohio Cultivator, Columbus, O.

The subscriber may be found on his farm, near the S.W. corner of the city of Rochester, on Genesee-street, (about half a mile south of Bull's Head;) or orders may be left at the office of the Genesee Farmer. T. H. HYATT.

Elmwood, Rochester, May, 1845.

Meteorological Observations.

MADE AT ROCHESTER, SEVEN MILES FROM LAKE ONTARIO, BY L. WETHERELL.

JOURNAL OF THE WEATHER FOR APRIL, 1845.

Days mo.	Thermometer. Sunrise.	Mid-day.	One h. after sunset.	Barometer. Sunrise.	Evening.	Wind. Prevailing wind.	Observations.
25	28	42	35	29.83	29.82	W S W	Fair.
26	32	54	50	.85	.50	S W	Cloudy—rain.
27	51	58	47	.59	.60	W N W	Fair—frogs first heard
28	50	50	44	.61	.69	NW NE	Fair—cloudy—rain.
29	52	76	59	.69	.66	S W W	Fair—toads first heard
30	50	76	65	.71	.65	S W S	Fair—Phœbe heard.
31	58	72	64	.65	.41	S W S	Fair—crocus & willow
1	48	40	38	.08	.50	W	Cloudy—rain. 1 in bl.
2	35	54	38	.35	.55	..	Cloudy—snow & rain
3	29	38	33	.75	.39	S W	Cloudy snow.
4	44	48	38	.15	.40	..	Cloudy.
5	28	38	25	.55	.54	..	Fair—cloudy—snow.
6	20	41	32	.57	.41	..	Fair—cloudy.
7	24	32	26	.45	.54	..	Cloudy—snow. r.g. .03
8	22	28	26	.61	.75	..	.. ..
9	20	38	36	.79	.50	N W W	Fair—cloudy—r.g. .15.
10	41	52	40	.14	.30	S W	Cloudy—rain.
11	35	41	34	.50	.65	..	Cloudy—fair—snow.
12	27	52	42	.76	.67	..	Fair—cloudy—r.g. .03.
13	36	62	48	.35	.40	..	Fair—aspen in bloom.
14	38	56	48	.57	.51	..	Fair—apricot ..
15	40	62	53	.60	.55	..	Fair—cloudy.
16	47	48	42	.49	.39	N E	Cloudy, rain.
17	41	54	49	.41	.51	SE NE	Cloudy—foggy—rain.
18	49	62	50	.59	.54	S E	Cloudy.
19	48	52	50	.47	.43	S S W	Rainy day.
20	42	44	42	.49	.57	N W W	Cloudy—rain—r.g. .74
21	41	58	36	.60	.70	N W	Cloudy—fair.
22	44	62	54	.70	.50	W	.. ..
23	56	72	64	.50	.45	S E	Cloudy—showers.
24	60	72	60	.55	.50	N	Cloudy—r.g. 37.

Max. (Mar. 30) ther. 76 deg.; do. bar. (Ma. 26) 29.85 in.
Min. (April 9) " 20 deg.; do. " (April 1) 29.08 in.

REMARKS.—The last of March was very warm and dry. Summer heat the 29th and 30th—spring birds made their appearance, and plants began to blossom.

April—First half of the month very cold and dry; vegetation made but little progress. Frequent squalls of snow.

BEE-HIVES.

PARK'S NIAGARA BEE-HIVE, for sale at the Agricultural Depot, adjoining the Rochester Seed Store, New Brick Block, Front-street. B. F. SMITH & CO.

DAHLIA, ASPARAGUS, and RHUBARB ROOTS, for sale at the Rochester Seed Store. B. F. SMITH & CO.

ROCHESTER PRODUCE MARKET.

Wheat,	90	a 96	Hay, ton,	$7	50	8	00	Eggs, doz.	6 8
Corn,	37½	a 40	Wood, cord,	2	00	2	50	Poultry, lb.	5 6
Barley,	40	50	Salt, bbl.,			1	13	Tallow,	
Oats,	25	28	Hams, lb,		5		6	Hops,	10 11
Flour, (ret.)	4	25	Pork, bbl.		10	00		Wool,	35 40
Beans,	75	1 00	" cwt.	3	25	3	75	Sheep Skins,	50 75
Apples,	38	50	Beef, "	2	00	3	00	Green H'ds, lb.	3 7
Potatoes,	18	25	Lard, lb.,		5		6	Dry Hides,	6 7
Cloverseed,	4 00	4	50 Butter,		9		12	Calf skins, gr'n.	5 4
Timothy,	1	1	50 Cheese, cwt.	5	00	6	50		May 1.

CONTENTS OF THIS NUMBER.

To Correspondents 65
Liebig and Agricultural Science—Steeping Seed-Corn—Electricity—Preparing Wool for Market 66
Western Reserve Magazine—Pump-Logs; Inquiry—Aurora School—Draining—Sprouting Seeds—Prospects of the Wheat Crop—Kitchen Garden 67
Symphytum, or Comfrey—Science of Vegetable Nutrition—Potato-fatted Hogs—Marl 68
Agricultural Report; by D. LEE 69, 70
Very fine Hogs 71
Improved Short-horn Durham Heifer Esterville, (cut)—Wintering Stock; a Dialogue 72
"N. Y. Farmer & Mechanic's" Criticism on S. W.—Emur, or Wheat Barley—Herd Book 73
Spring Weather—Prospect of the Wheat Crop; &c., &c. 74
Wild Flowers—Flower Garden—Insects—N. Y. State Agricultural Society: Premium List for Fall of 1845 ..... 75, 76, 77
Col. Randal's Sheep—Wheat Insect—Mr. Colman's Report 78
Advertisements, &c., &c. 79, 80